

REMARKS

Claims 1, 2 and 4-10 are all the claims pending in the application. Claim 1 has been amended based on, for example, Figure 2 of the application.

Entry of the above amendments is respectfully requested.

I. Response to Rejection of Claims 1-2, 4-5, 7 and 9-10 under 35 U.S.C. § 102(b)

Claims 1-2, 4-5, 7, and 9-10 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Fukuzawa et al. (US 5,755,261).

Applicants respectfully traverse the rejection.

Claim 1 is directed to an apparatus for feeding a high-purity ammonia gas, comprising an ammonia gas flow path and a sealing part and/or a gas contacting part, which is in the ammonia gas flow path and comprise a halogen-free resin selected from the group consisting of a polyolefin resin, a phenol resin, a xylene resin, a polyphenylene sulfide resin, a polyether ether ketone resin and a polyimide resin.

It is respectfully submitted that Fukuzawa fails to teach each and every element of claim 1.

Fukuzawa teaches that an object is to provide a valve assembly that can stop water reliably even after long use and permits a smooth operation of the handle for adjusting the water supply. See col. 2, lines 34-42. Another object of Fukuzawa is to prevent water leakage. See col. 2, lines 54-57. Thus, Fukuzawa discloses a valve assembly to be used with water.

Accordingly, Fukuzawa does not disclose, teach or suggest an ammonia gas flow path. In particular, Fukuzawa does not disclose, teach or suggest a halogen-free resin used in a part that is in the ammonia gas flow path to prevent a dehalogenation reaction caused by using a halogen-containing resin.

Hence, Fukuzawa fails to anticipate claim 1.

For at least the above reasons, it is respectfully submitted that claim 1 is patentable over Fukuzawa.

In addition, claims 2, 4-5, 7, and 9-10 depend from claim 1, and thus it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

II. Response to Rejection of Claims 1-2, 4-5, 7 and 9-10 under 35 U.S.C. § 103(a)

Claims 1-2, 4-5, 7, and 9-10 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fukuzawa et al. in view of Kimura et al. (US 2003/0162870).

Applicants respectfully traverse the rejection.

As discussed above, Fukuzawa does not disclose, teach or suggest an ammonia gas flow path or a halogen-free resin used in a part that is in an ammonia gas flow path to prevent a dehalogenation reaction caused by using a halogen-containing resin. In addition, Kimura fails to make up for the deficiencies of Fukuzawa. It is submitted that there is no motivation for one of ordinary skill in the art to use a halogen-free resin in a part in an ammonia gas flow path, as claimed.

For at least the above reasons, it is respectfully submitted that claim 1 is patentable over Fukuzawa and Kimura.

In addition, claims 2, 4-5, 7, and 9-10 depend from claim 1, and thus it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

III. Response to Rejection of Claims 5-9 under 35 U.S.C. § 103(a)

Claims 5-9 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fukuzawa et al. (US 5,755,261) in view of Borland (US 5,474,105).

Applicants respectfully traverse the rejection.

It is submitted that claims 5-9 depend from claim 1, and thus these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

IV. Response to Rejection of Claims 1-2 and 4-10 under 35 U.S.C. § 103(a)

Claims 1-2 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borland in view of Kimura.

Applicants respectfully traverse the rejection.

Borland relates to a refueling check valve for compressed natural gas powered vehicles and does not relate to an apparatus for feeding a high-purity ammonia gas. Thus, it is submitted that Borland does not disclose, teach or suggest an ammonia gas flow path or a sealing part and/or a gas contacting part, which is in the ammonia gas flow path and comprise a halogen-free resin, as recited in claim 1. In addition, Kimura fails to make up for the deficiencies of Borland. It is submitted that there is no motivation for one of ordinary skill in the art to use a halogen-free resin in a part in an ammonia gas flow path, as claimed.

For at least the above reasons, it is respectfully submitted that claim 1 is patentable over Borland and Kimura.

In addition, claims 2 and 4-10 depend from claim 1, and thus it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

V. Response to Rejection of Claims 1-2, 4-7 and 9-10 under 35 U.S.C. § 103(a)

Claims 1-2, 4-7 and 9-10 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Beaver et al. (US 5,149,105) in view of Kimura.

Applicants respectfully traverse the rejection.

Beaver relates to a method and apparatus for repairing vessels. Thus, it is submitted that Beaver does not disclose, teach or suggest an ammonia gas flow path or a sealing part and/or a gas contacting part, which is in the ammonia gas flow path and comprise a halogen-free resin, as recited in claim 1. In addition, Kimura fails to make up for the deficiencies of Beaver. It is submitted that there is no motivation for one of ordinary skill in the art to use a halogen-free resin in a part in an ammonia gas flow path, as claimed.

Further, although Beaver discloses vessels and the like for corrosive gases, in the case of using such a corrosive gas, there is conventional technology that a fluororesin having excellent chemical stability is used. See page 2, line 2 to page 3, line 11 of the present specification. However, ammonia gas has different properties from corrosive gasses. The present invention is based on the discovery that an ammonia gas causes a dehalogenation reaction in case of using a fluororesin in parts which exist in an ammonia gas flow path. As a result, the halogen that flowed outside the resin system damaged the metal material constituting the apparatus. See page 5, lines 11-22.

For at least the above reasons, it is respectfully submitted that claim 1 is patentable over Beaver and Kimura.

In addition, claims 2, 4-7 and 9-10 depend from claim 1, and thus it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

VI. Response to Rejection of Claim 8 under 35 U.S.C. § 103(a)

Claim 8 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Beaver in view of Kimura and Borland.

Applicants respectfully traverse the rejection.

It is submitted that claim 8 depends from claim 1, and thus claim 8 is patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

VII. Response to Rejection of Claim 10 under 35 U.S.C. § 103(a)

Claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fukuzawa et al. in view of Floh et al. (US 2004/0045605).

In addition, claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fukuzawa et al. in view of Kimura and further in view of Floh et al.

Applicants respectfully traverse the rejection.

It is submitted that claim 10 depends from claim 1, and thus claim 10 is patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

VIII. Response to Rejection of Claim 10 under 35 U.S.C. § 103(a)

Claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Beaver et al. in view of Kimura et al. and further in view of Floh et al.

Applicants respectfully traverse the rejection.

It is submitted that claim 10 depends from claim 1, and thus claim 10 is patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

IX. Response to Rejection of Claim 10 under 35 U.S.C. § 103(a)

Claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Borland in view of Kimura in view of Floh.

Applicants respectfully traverse the rejection.

It is submitted that claim 10 depends from claim 1, and thus claim 10 is patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

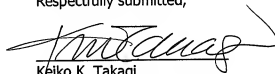
X. Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1, 2 and 4-10 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

CUSTOMER NUMBER

Date: September 22, 2009